

ABSTRACT

Bit operation instructions such as find first bit instructions are provided. The instructions themselves include four instructions for returning a value corresponding to a bit position that stores the first zero or the first one in a memory location beginning from the left or right side of a data word depending on the instruction. Two additional instructions find the first bit change from the left or the right side of a memory location. The instructions operate on data specified in a source register and return a result to a destination register. The source and destination registers may store the data directly or may store pointers to the data. In addition, the instructions may specify the source data as word or byte data.